

REMARKS

Claims 8-14 are all the claims pending in the application, as Applicant cancels claims 1-7 to replace them with claims 8-14.

The objections to Claims 1 and 4 are believed moot by the replacement with claims 8-14.

Claims 2, 3 and 5-7 are rejected under 35 U.S.C. § 112, second paragraph. These rejections are believed moot by the replacement with claims 8-14.

Claims 1 and 4 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11 and 13-15 of U.S. Patent No. 6,960,372 (Sughrue Ref: Q72197; Your Ref: H01-149740M/SMI).

Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Motomura (US Publication 2003/0064159).

Claims 3, 6 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Motomura (US Publication 2003/0064159) and further in view of JP 2002-136915.

Analysis of Prior Art Rejections

Nonstatutory Obviousness-type Double Patenting Rejection

The new independent claims 8 and 12 include the subject matter of originally filed claims 2 and 5, which were not rejected in the double patenting rejection. Therefore, all pending claims are now patentable over USP 6,960,372.

§102(b) Prior Art Rejection

The Examiner asserts that Motomura inherently causes the coating to dry when the substrate is moved to the drying apparatus. However, Motomura specifically teaches that the air current generating apparatus 21 is set at the coating end position (paragraph [0099]).

“Then, the control unit, when the absorption board 19 reaches a coating end position, stops the drive of the motor 17. Here, the coating end position means a position of the absorption board 19 when the resist coating is completed. Specifically, it is preferable that the vicinity of the air current generating apparatus 21 is set as the coating end position. Thus, in case that the coating end position is thus set as the right upside of the air current generating apparatus 21, after coating ends, the next step can immediately proceed to dry of the resist film.” (underline added)

Thus, the drying step can begin immediately after the coating step without having to move the substrate to the drying apparatus, or back to position A. In the second and third embodiments, the drying apparatus is provided alongside with the nozzle, and thus, again, the substrate is not moved to the drying means.

Thus, it is not inherent that the substrate is moved during the drying process, in the opposite direction of movement of the coating step in Motomura.

Furthermore, according to Motomura (paragraph [0107]):

“Further, since it can be realized that the resist film is dried uniformly in the state where the surface to be coated looks down, such convenience can be provided that after end of coating, the operation can immediately proceed to the step of drying the resist film without transporting the photomask blank 20.” (underline added)

In other words, Motomura is particularly focused on the convenience that after the end of coating, the substrate directly reaches the drying step without transferring the photomask blank

and, thus, Motomura is characterized in this feature. Therefore, it would not have been obvious for one of ordinary skill in the art to modify Motomura to have the substrate moved in the opposite direction. This modification is directly contrary to the convenience emphasized in Motomura.

Still further, Motomura describes that drying the coated resist film while preventing downflow from turning into the resist film by using suppression means such as an air current generating apparatus 21 or mask 64 (see paragraphs [0101] and [0112]).

To the contrary, the present invention does not employ such a structure. Instead, the present invention dries the substrate by moving it in the opposite direction. According to this structure, eddy flow and the non-uniform drying can be prevented. That is, the non-uniformity of a to-be-coated surface is caused by generation of the eddy flow due to the turning in of the downflow can be reduced by moving the substrate which is in the drying process. There is simply no teaching or suggestion in the prior art of this feature, unless one were to turn to Applicant's own disclosure. Therefore, one of ordinary skill in the art would not have arrived at the present invention based on the teachings of Motomura.

In view of the foregoing, independent claims 8 and 12 are patentable.

The remaining dependent claims are patentable for at least the same reasons as claims 8 and 12, by virtue of their dependency therefrom.

§103 Prior Art Rejections

Japan 2002-136915 fails to cure the deficiencies of Motomura. JP '915 does not teach or suggest a reverse movement of the substrate for the drying step. Thus, the combination of cited

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/820,791

references, whether taken alone or in combination, fails to teach or suggest that the substrate is moved in the opposite direction for the drying step.

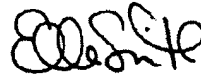
Thus, claims 8-14 are patentable over the combination of Motomura and JP '915.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Ellen R. Smith
Registration No. 43,042

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: October 4, 2006

Attorney Docket No.: Q81014